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STATEMENT OF
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BEFORE THE
SUBCOMMITTEE ON FOSSIL AND SYNTHETIC FUELS
AND
SUBCOMMITTEE ON ENERGY CONSERVATION AND POWER
OF THE
HOUSE COMMITTEE ON ENERGY AND COMMERCE
ON
REMOVING BARRIERS TO THE MARKET PENETRATION OF METHANOL FUELS

Mr. Chairman and members of the Subcommittees:

I appreciate the opportunity to participate in these hearings on methanol fuel. My remarks are based primarily on our 1983 report.¹

PERSPECTIVE

Before getting to specifics, some background and perspective might be useful. Using methanol as a fuel to power automobiles and other vehicles requires two conditions--the production and availability of methanol itself and the existence of vehicles designed to use it. The principal barrier is the economics of producing and distributing both the fuel and the vehicles. Such an undertaking involves complex and costly operations; it raises the "chicken or the egg" question of which comes first.

Auto manufacturers are unwilling to produce cars designed to run on methanol fuels until the fuel is widely available at the retail level. Methanol producers and marketers are unwilling to invest in a fuel that has as yet few customers. In the absence

¹"Removing Barriers to the Market Penetration of Methanol Fuels,"
RCED-84-36, October 27, 1983.



of a clear demand for the products, neither side is likely to invest significant amounts of capital to develop this alternative-fuel source.

It is in this context that any initiatives to encourage methanol fuel must be viewed. There is little the federal government can do to influence these economic factors short of providing financial incentives. However, certain federal regulations may present additional, though less substantial, impediments. Unlike the economic barriers, regulatory factors are within the control of the federal government.

I would now like to briefly address (1) regulations and standards which may affect the commercialization of methanol; (2) the potential for vehicle fleet use as a market catalyst; and (3) the issue of possible future sources of methanol supply if a major market develops in the transportation sector.

FEDERAL STANDARDS AND REGULATIONS AFFECTING METHANOL

Besides economic considerations, various federal standards and regulations affect methanol fuels and vehicles that use them. To promote the use of methanol as an alternative transportation fuel, the government could take several steps to overcome or diminish administrative impediments. Keeping in mind the fundamental economic barriers which must be overcome, we consider that these steps might be effective at the margin--that is, they themselves would not create widespread use of or demand for methanol fuels or vehicles, but they might help.

Emissions standards

Vehicles running on methanol and specifically equipped or adjusted for its use normally meet established standards for carbon monoxide, hydrocarbon and nitrogen oxide emissions. However, EPA currently has no officially sanctioned certification procedures for vehicles designed to burn methanol. This absence

leaves potential methanol vehicle producers uncertain as to what requirements will eventually have to be met.

In addition, methanol emits significantly higher levels of aldehydes (suspected carcinogens) than gasoline or diesel fuels. It also results in emission of unburned methanol. EPA could help in reducing some of the market uncertainty by developing appropriate emission standards in anticipation of market development--that is, before widespread methanol use makes their need apparent.

EPA is currently preparing to issue an Advance Notice of Proposed Rule Making. This rule making process will address certification standards for methanol vehicles. These certification standards will specify permissible emission levels from methanol vehicles, and delineate how EPA intends to deal with aldehydes.

Fuel economy standards

We found that there is no officially accepted method of comparing the fuel economy of methanol fuels with that of gasoline or diesel fuels under the Corporate Average Fuel Economy Standards. This comparison is not straight forward because methanol and gasoline contain different amounts of energy per unit of volume. The inability to compare the fuel economy of the two types of vehicles would probably have a negative effect on both the production and sale of vehicles using methanol. However, EPA, with the cooperation of the Department of Transportation, may be able to establish an equivalency factor to compensate for methanol's lower volumetric energy content compared to established fuels. We note that one of the bills being considered by these committees includes a provision which calls for both EPA and DOT to act on this issues within one year of its passage. We understand that EPA will be evaluating a fuel equivalency factor as part of the rulemaking process I discussed a few moments ago.

Antitrust considerations

Our study revealed that antitrust considerations may limit some specific cooperative activities considered desirable by methanol fuel producers and vehicle manufacturers. Vehicle manufacturers and methanol producers would like to agree on standards and production schedules to assure simultaneous availability of both vehicles and fuel. The scope, extent, and duration of vehicle and fuel producers' cooperation could be defined in consultation with the Department of Justice to minimize the chance of formal antitrust actions. Procedures for such consultations are well established.

PUBLIC AND PRIVATE FLEET USE OF METHANOL VEHICLES

We also examined the potential for using methanol in large public and private fleets as a market catalyst. This potential is limited by technical constraints and the driving requirements of many fleets. Under favorable conditions and assuming some motivation on the part of the fleet operators to convert, captive fleet use of methanol could potentially lead to a wider market for methanol fuel and vehicles. This development would be further encouraged if fleet operators were to contract for their fuel needs with gas stations open to the general public rather than fuel their vehicles in private facilities.

Fleets in themselves do little to provide the widespread fuel distribution infrastructure needed to make ownership of methanol vehicles practical for the general public, particularly if they are fueled from a location inaccessible to the public. On the other hand, fleet owners using local retail service stations to obtain methanol fuel, rather than their own private facilities, could be the first step towards a general distribution infrastructure.

Converting the federal fleet to methanol fuels might have a positive psychological effect by indicating a government endorsement of methanol. We believe, however, that such action by

itself will not provide a sufficient market to promote general availability of methanol fuel and vehicles.

Both bills now under consideration contain provisions for the federal government to procure one thousand methanol vehicles, and to make the fuel for these vehicles publically available.

METHANOL IMPORTS MAY
PENETRATE DOMESTIC MARKET

If a market for methanol develops in the transportation sector, fuel supplies beyond current production capacity may not come from new domestic sources but may be imported. Producing methanol from domestic coal is unlikely in the near- to mid-term because of the large front-end capital investment required for this type of production facility and the likelihood of price competition from imported sources. The quantity of methanol currently imported is increasing, but it is still small compared to domestic production. For the future, however, foreign producers of methanol apparently may enjoy a significant price advantage. Their natural gas feedstock, essentially a by-product of crude oil production, is often flared or reinjected. It can therefore serve as the basis for low cost methanol production.

This concludes my prepared statement. I would be pleased to answer questions at this time.

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